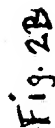
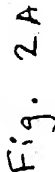


Fig. 1 (Prior Art)



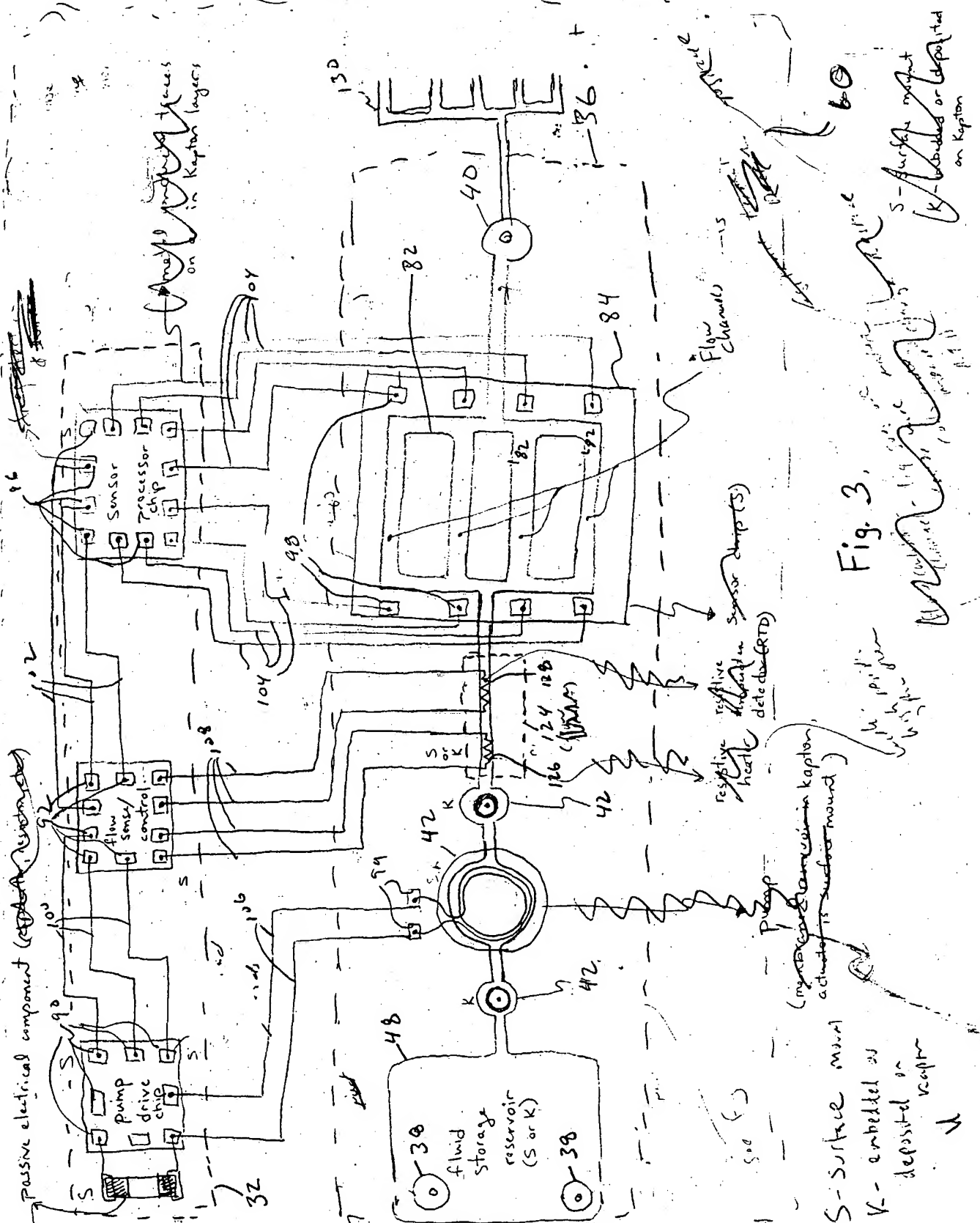
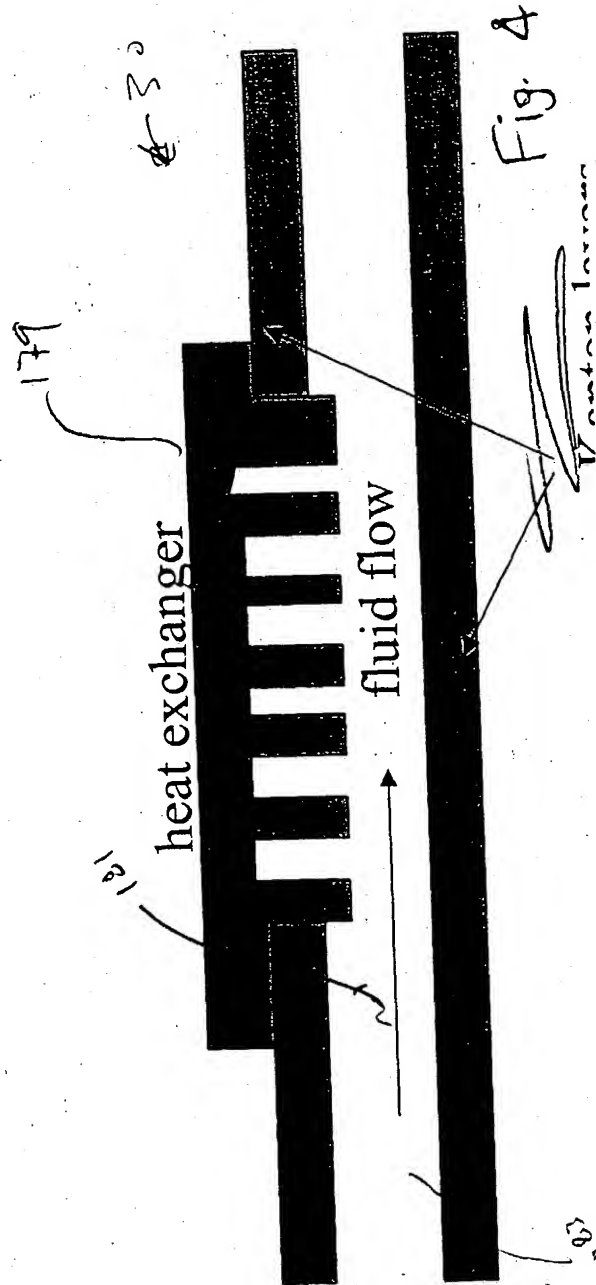


illustration of integrated heat exchanger



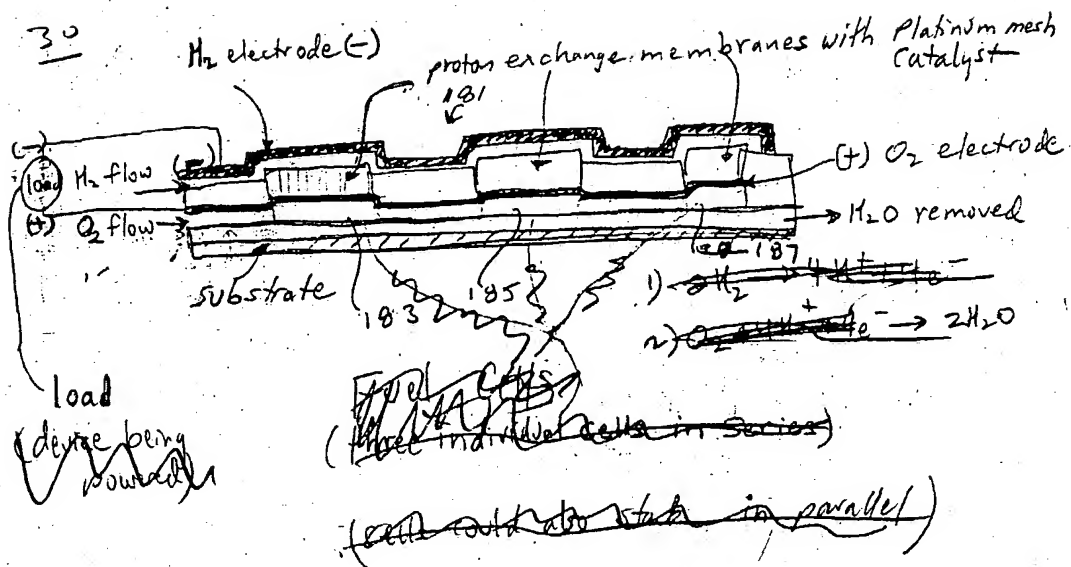
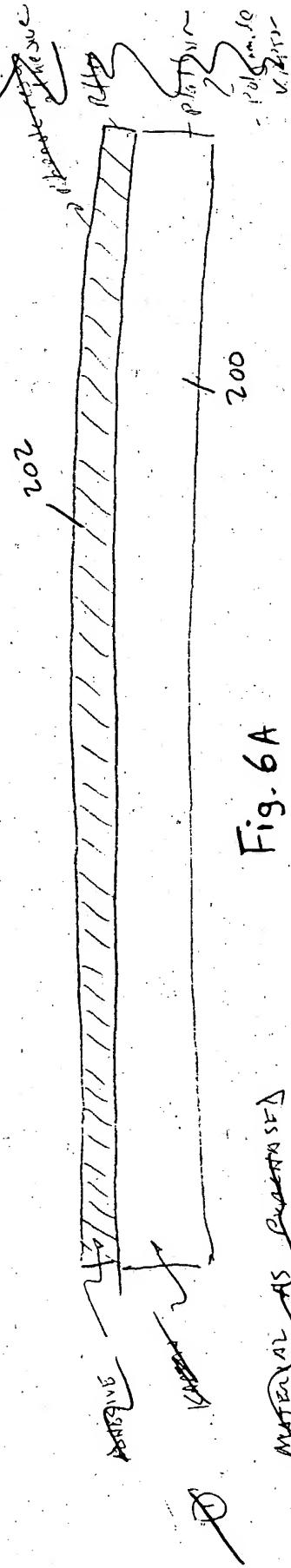


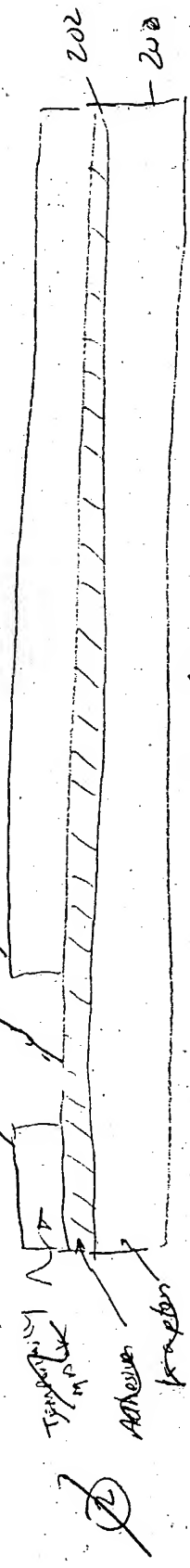
Fig. 5

FABRICATION METHOD

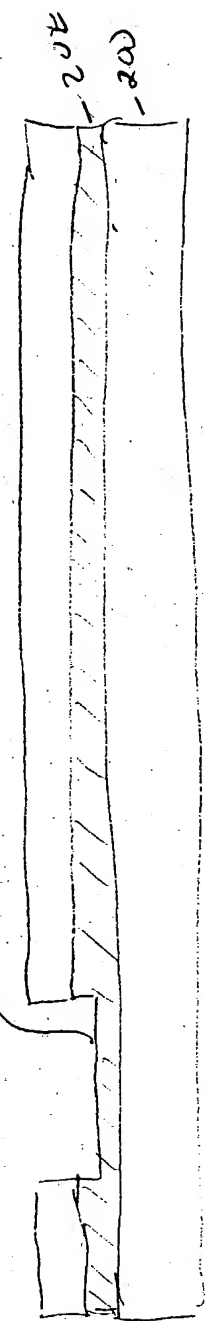
DRAPER
DYE METER, FIRING
MAY 12, 2003



204 206 204



208



(1)

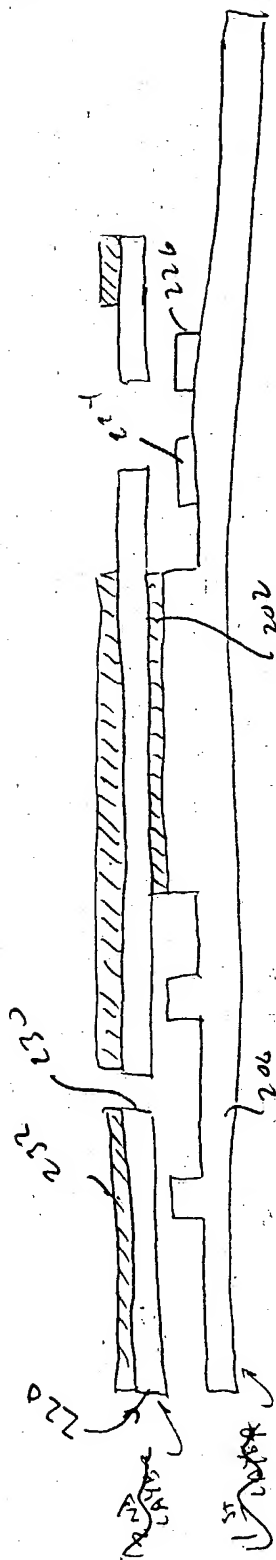


Fig. 6G

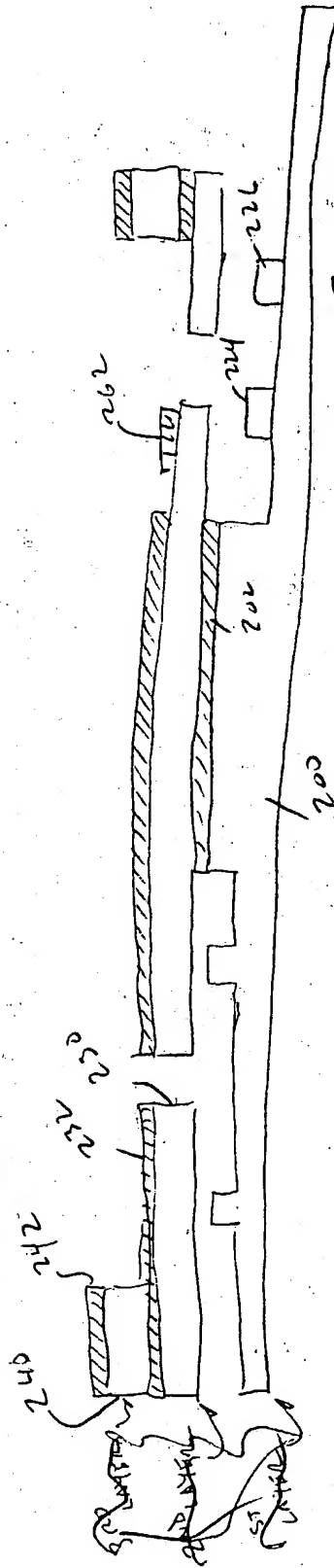


Fig. 6H

REPEAT STEPS 6 AND 7 AS NEEDED FOR BUILT STACK

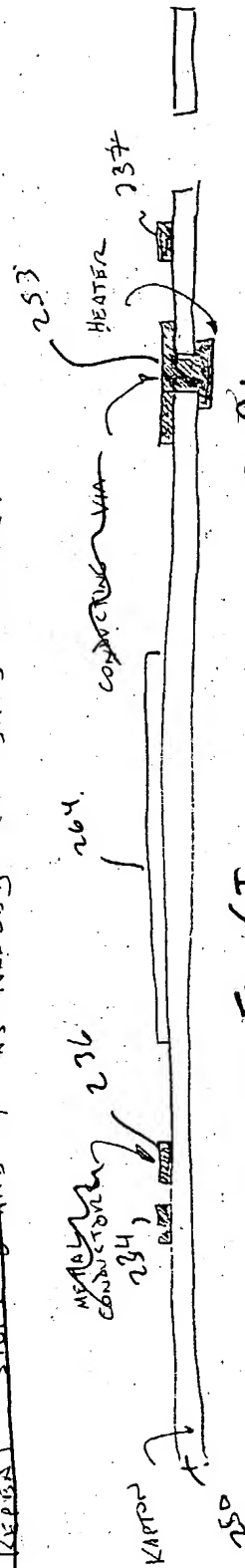


Fig. 6I

PREPARE TOP LAYER WITH METAL CONDUCTORS AS IN STANDARD CIRCUIT BOARD TECHNOLOGY

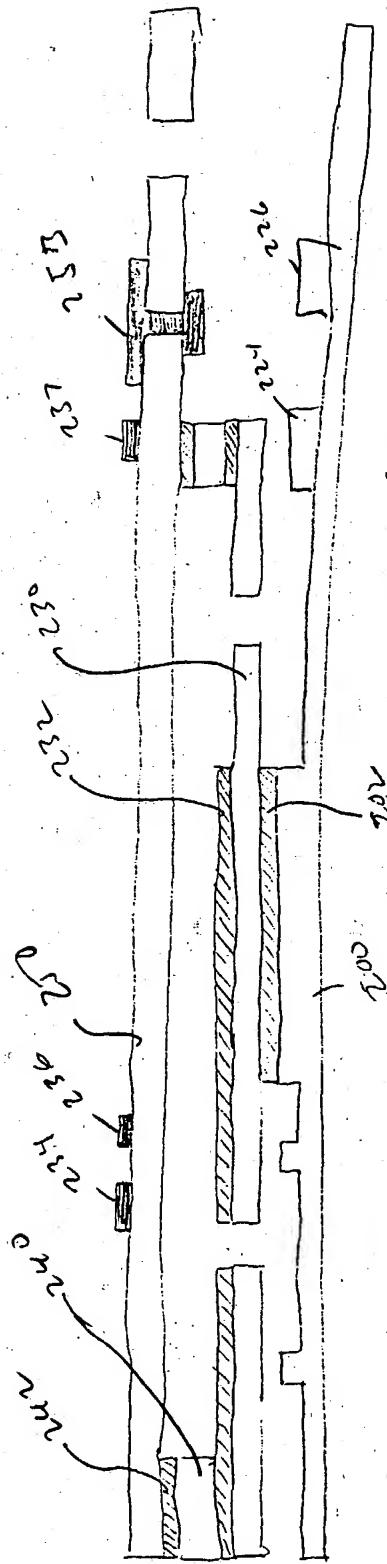
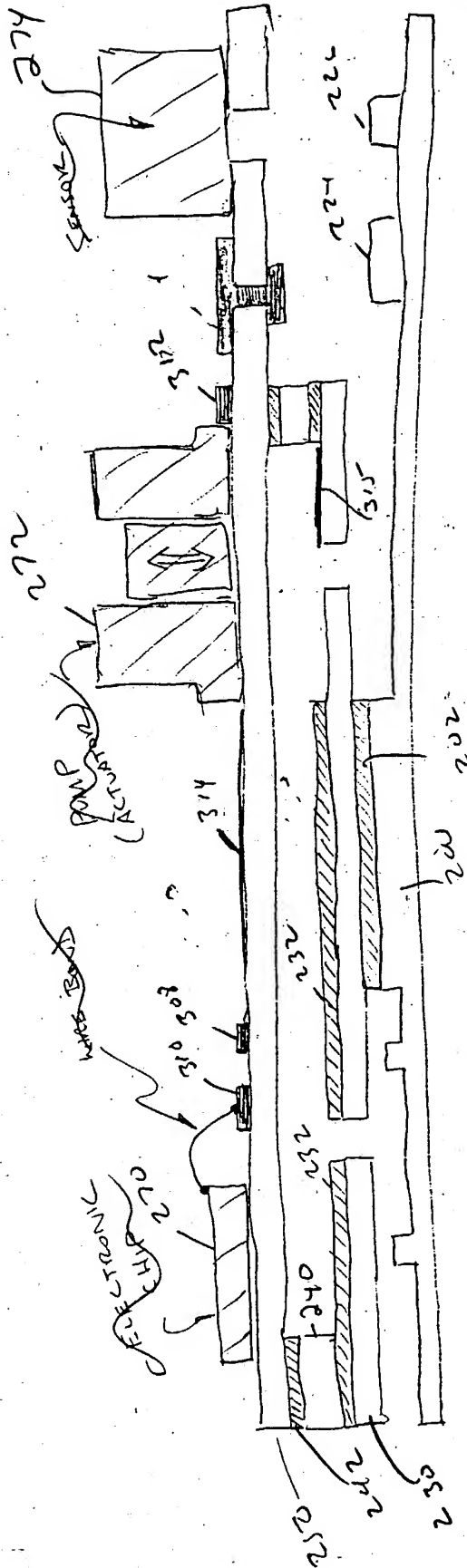


Fig. 6J

(10) ALIGN AND LAMINATE TOP LAYER



(11) ATTACH SURFACE MOUNT COMPONENTS SUCH AS PUMP ACTUATOR, SENSOR AND STANDARD ELECTRONICS MAKE ELECTRONIC CONNECTIONS SUCH AS WIRE BONDS AND SOLDER JOINTS

Fig. 6K

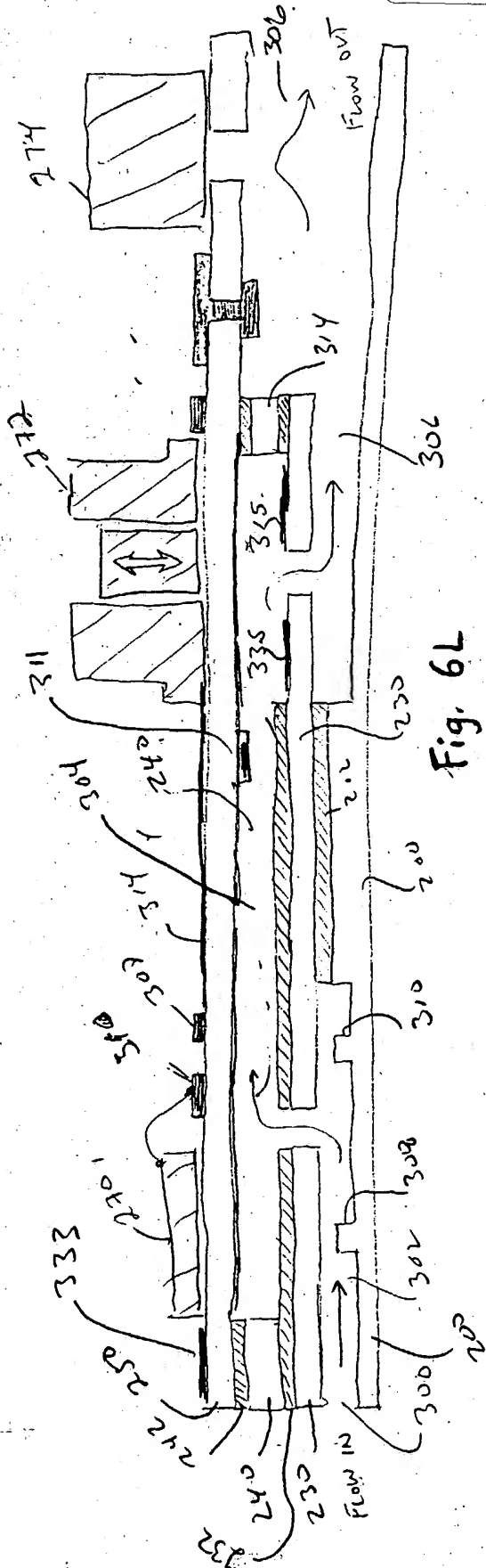


Fig. 6L

12 COMPLETED SYSTEM

TUBE, MESSEUR, FIERING
MAY 12, 2003

FABRICATION METHOD: DETAIL OF LAMINATING
AN ELECTRONIC COMPONENT INTO THE ELECTRO-FLUIDIC
SYSTEM

Applicant: Dubé et al.
Title: INTEGRATED ELECTROFLUIDIC SYSTEM AND METHOD
Docket No.: DR-352J
Attorney: Roy J. Coleman, Reg. No. 48,863
Page 12 of 14

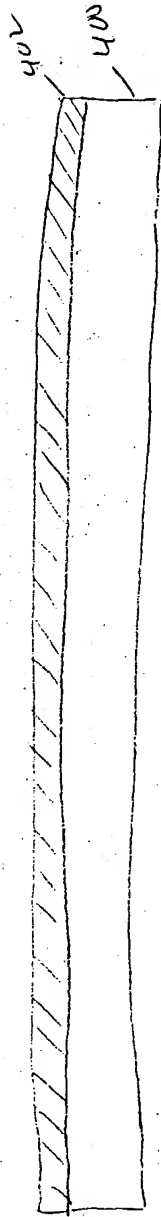


Fig. 7A

~~MATERIAL IS PURCHASED~~

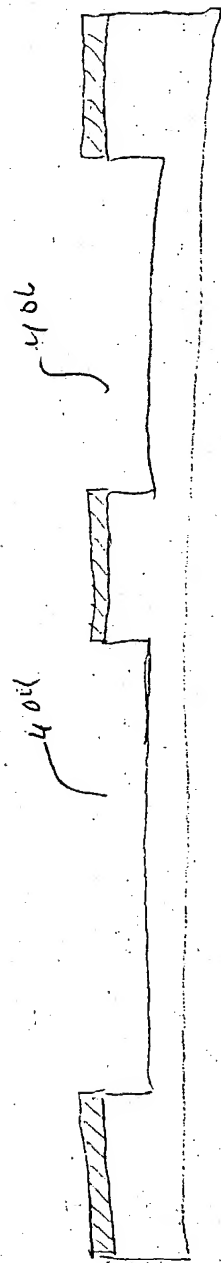


Fig. 7B

~~CASING MACHINE CHANNELS~~

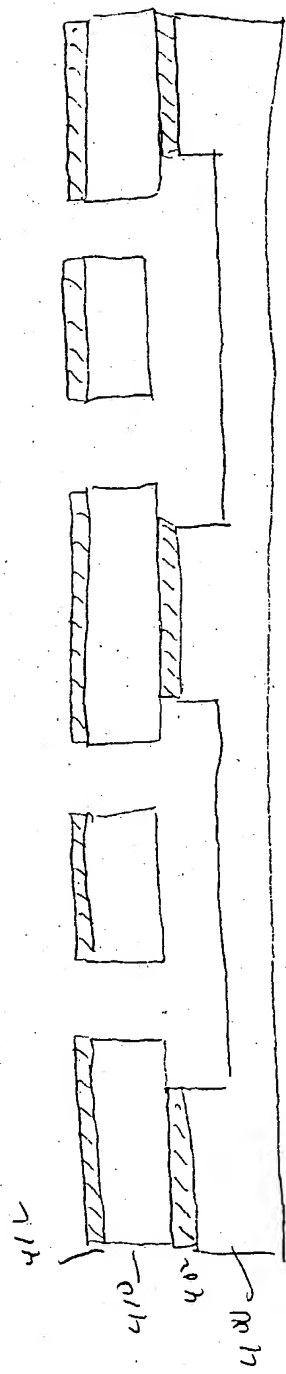


Fig. 7C

~~3 REPEAT AND LAMINATE FOR MULTIPLE LAYERS~~

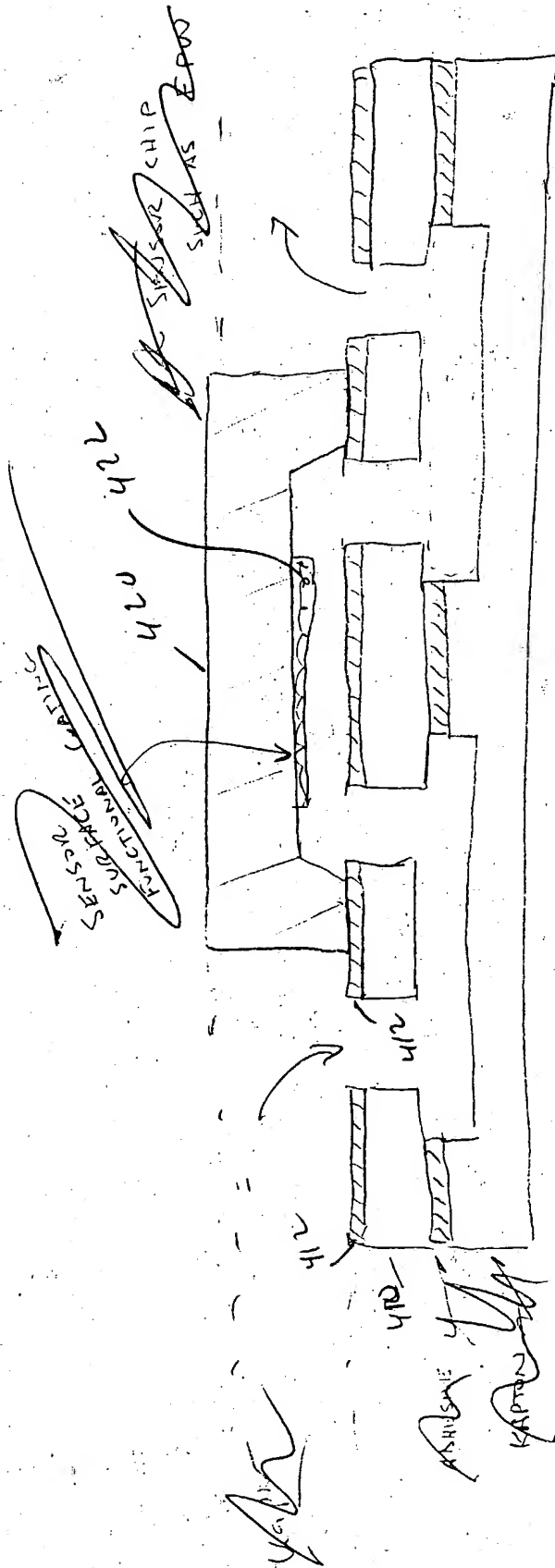
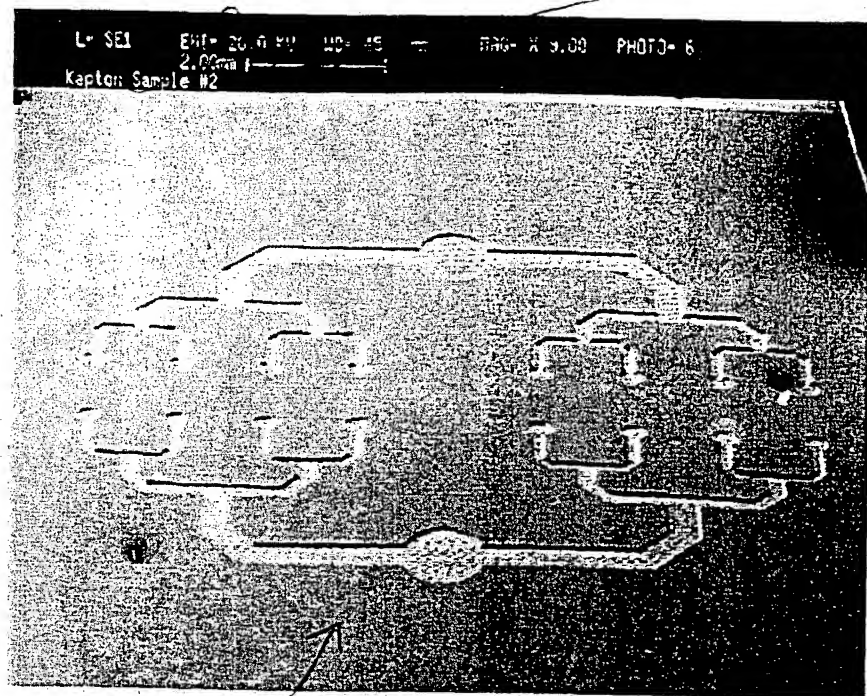


Fig. 7D

ALIGN AND LAMINATE SENSOR CHIP

NOTE, CHIP IS LAMINATED INSTEAD OF BEING ATTACHED BY SURFACE MOUNT METHOD



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Fig. 8